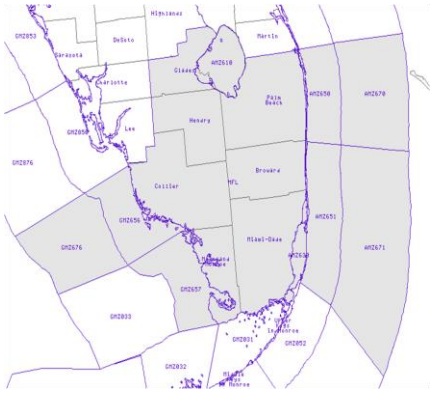
Issue 1 Summer 2010

Hello, and welcome to our very first issue of 'Tropical Winds', the official newsletter of the National Weather Service Forecast Office in Miami. This seasonal newsletter is designed to keep our customers and partners informed of the latest happenings such as past weather events, seasonal forecasts, local outreach activities, the latest on forecating techniques, and many other activities across our weather forecast area which includes the counties of Palm Beach, Broward, Miami-Dade, Glades, Hendry, Collier,and mainland sections of Monroe and is home to nearly 6 million people.



What is the National Weather Service?

The National Weather Service is one of six agencies that make up the National Oceanic and Atmospheric Administration (NOAA), and includes 122 weather forecast offices (WFO) across the United States including Alaska, Hawaii, Puerto Rico, and Guam. In addition to the WFOs there are also several national offices such as the National Hurricane Center, the Tropical Analysis and Forecast Branch, the Storm Prediction Center, the Hydrometeorological Prediction Center, and others. The NWS provides weather and hydrologic forecasts and watches and warning for the United

In This Issue…

States, its territories and adjacent coastal waters, for the protection of life and property and enhancement of the national economy free of charge to its users. The National Weather Service issues a variety of products to support a variety of users such as terminal aerodrome forecasts to support the aviation community, fire weather forecasts to support the local and regional land management agencies, public forecasts such as the zone forecast product, marine products, event driven products such as severe thunderstorm warnings, and many others.

Hurricane Season again! After an exceptionally cold and long winter across South Florida, we now are about to enter another hurricane season - one that looks like it could be active given the warm Atlantic Ocean temperatures and the waning El Nino. Are we ready? It's time again to dust off your personal hurricane plan, whether you will be riding out the storm at home or evacuating to a safer location inland.


Rusty Pfost, Meteorologist in Charge

Don't have a plan? No better time than now to get one started! Check out the State of Florida's Emergency Management plan development page at http://floridadisaster.org/ and always keep the NWS Miami web page bookmarked for the latest weather information at http://weather.gov/southflorida.

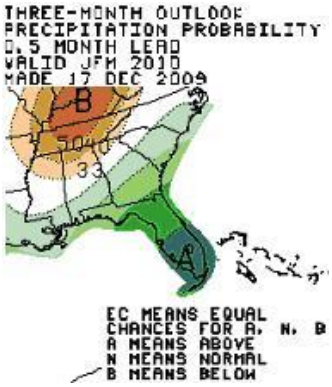
This September we will observe two important hurricane anniversaries: the 50th anniversary of category 4 Hurricane Donna in 1960 and the 75th anniversary of the category 5 Labor Day Hurricane in 1935. Both of these storms were devastating to the Florida Keys and Everglades National Park, and the 1935 storm killed hundreds of World War I veterans working on the Overseas Highway. Take a few minutes sometime soon to read about these two hurricanes in the NWS WFO Miami past events web site at http://www.srh.noaa.gov/mfl/?n=events_index. By understanding our hurricane past, we can better prepare for hurricane threats in the future.

Weather Review and Outlook

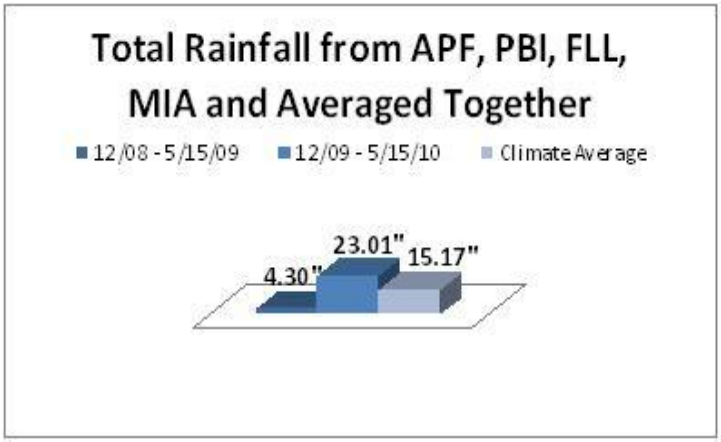
2009-2010 Winter and 2010 Spring Review

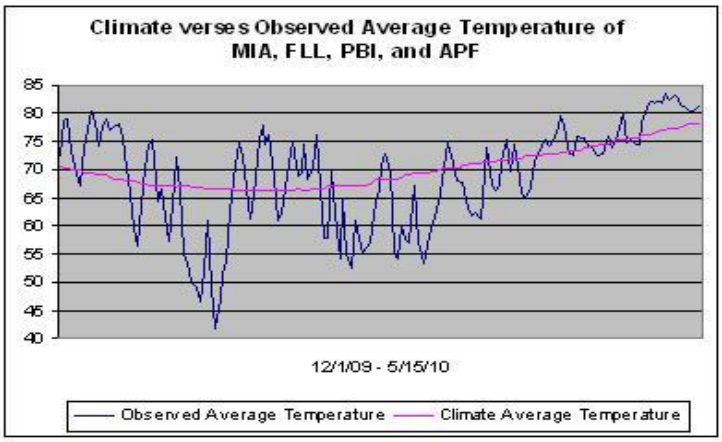
By Andrew Tingler

Anyone who has spent an extended length of time in South Florida knows that even the winters can be warm with average highs in January in the mid 70s area wide, however this winter was a bit different. By mid December the National Center for Environmental Prediction (NCEP) released their outlook for January, February, and March stating that El Nino may lead to a wetter and cooler period locally and indeed below normal temperatures were common. The El Nino combined with the strongly negative North Atlantic Oscillation (NAO) to make South Florida feel unusually cool and very un-South Florida like, and compared to the climate average and the winter/spring period of 2008-2009, the winter and spring period of 2009 -2010 was almost a degree and a half below normal and almost two and a half degrees cooler than the prior year.



The cool and wet winter and spring that South Floridians endured was also accompanied by other weather phenomenon ranging from 12 to 16 inches of rain and an ensuing flood from Hollywood to North Miami Beach in December, multiple nights of at or below freezing temperatures across the interior in January, sleet (which was the first wintry precipitation observed in the area in many years) in January, and a tornado in Oakland Park in March to name a few.





Oakland Park Tornado-March 29, 2010

By Gordon Strassberg

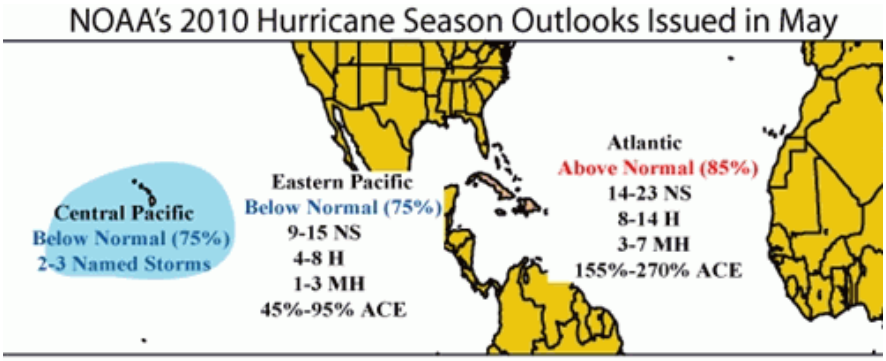
A cold front approached south Florida from the north during the overnight hours leading up to sunrise on March 29th, and teamed with an upper level atmospheric disturbance to produce widespread thunderstorms across the Lake Okeechobee and Gulf Coast region overnight due to moderate instability across the region. These storms moved southeast towards the east coast metro areas towards sunrise. Atmospheric conditions were favorable for the development of rotating thunderstorms, known as supercells. Several of these storms formed over the Everglades and moved towards and across the Miami and Fort Lauderdale areas shortly after sunrise.

The strongest storm moved east northeast across US 27 near Stirling Rd. shortly before 8 AM. As it moved through Southwest Ranches and southern parts of the Weston area, radar imagery showed that the storm began to rotate. As it neared I-75, the rotation became strong enough where NWS meteorologists issued a tornado warning at 7:54 AM, for areas from Weston to North Lauderdale along the storm's path. Finally, at 8:27 AM, after much concern, the storm produced a brief EF-0 tornado on the Enhanced Fujita Scale. It first touched down in the Royal Palm Isles section of Oakland Park just west of I-95, and then traveled east northeast for 2 miles before lifting near the intersection of NE 11th Ave and Floranada. The tornado was approximately 100 yards wide (see the track map included). The official NWS Storm Survey, conducted by Meteorologist-In-Charge Rusty Pfost, showed that most damage was minor and limited to trees, fences, roofs, trailers and cars.

2010 Hurricane Season Outlook & Preparedness

By Dan Gregoria

On May 27, 2010, NOAA unveiled the 2010 Atlantic Hurricane Season forecast. The forecast calls for an 85% chance of an above normal hurricane season, with the possibility of an extremely active season with 20+ storms possible, including the likelihood of 3-7 major hurricanes (Category 3 or greater).



NOAA's 2010 seasonal hurricane outlooks indicate the likely ranges (each with a 70% chance) of Named Storms (NS), Hurricanes (H), Major Hurricanes (MH), and percentage of the median Acccumulated Cyclone Energy (ACE).

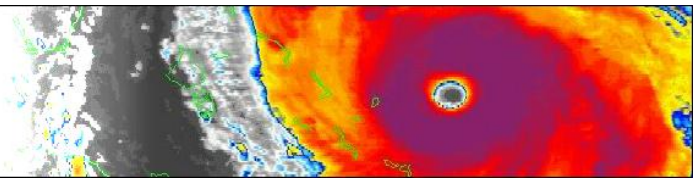
For 2010 the probabilities of each season type are:

	Atlantic	Eastern Pacific	Central Pacific
Above Normal	85%	5%	5%
Near Normal	10%	20%	20%
Below Normal	5%	75%	75%

Factors leading to this forecast are record warm sea surface temperatures currently in place across the tropical Atlantic with above average sea surface temps expected to continue throughout the season, an increasing chance of La Nina developing this summer, a continued atmospheric signal which favors increased activity in the Atlantic, and computer models which forecast a very active season, even extremely active.

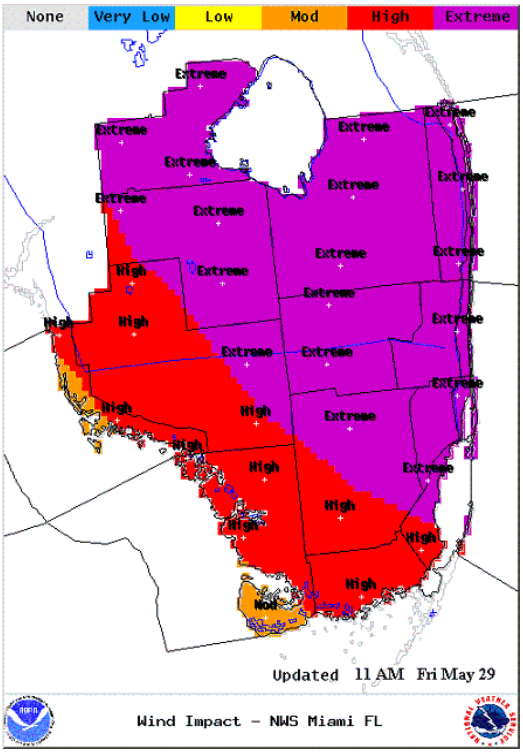
NWS Miami recommends preparing for hurricanes no matter what the seasonal forecast holds as even inactive seasons pose a risk of a hurricane landfall across South Florida. We live in the most hurricane prone area of the United States, so preparation is always essential before a tropical storm or hurricane threatens the area. For preparedness information, visit http://www.nhc.noaa.gov/HAW2/english/disaster_prevention.shtml or http://www.ready.gov.

Tropical Impact Graphics



By Dr. Pablo Santos

This season the NWS will be providing a Tropical Impact Graphics experimental product once a portion of South Florida is placed under a tropical cyclone watch or warning. This product is a companion to the traditional text Hurricane Local Statement (HLS) and is also referred to as the graphical HLS. The product contains colorized graphical depictions of the potential impact from each hazard associated with tropical cyclones, namely: Wind, Surge, Inland Flooding, and Tornadoes. When this product is available you will see a prominent icon in the front page of the Miami web page. For additional information, you can visit the National Tropical Impact Graphics website located at: http://www.weather.gov/ghls



Feedback is requested on this product. You can submit feedback by visiting the national site or this link directly: http://www.weather.gov/survey/nws-survey.php?code=TCIG

SKYWARN

By Rob Molleda

Ever wondered how NWS meteorologists know that severe weather is occurring? Many people think that the technological tools NWS meteorologists use to detect possible severe weather, such as Doppler radar, satellite data, and ground weather stations, paint a full picture of what is occurring on the ground. The fact is, however, that none of these tools are 100% reliable in detecting severe weather where it is most important, at ground level.

In order to get "ground truth" reports of severe weather, NWS meteorologists rely on a network of dedicated volunteer storm spotters. The SKYWARN program is the National Weather Service's way of establishing this critical network of storm spotters. Every NWS office in the United States maintains its own SKYWARN network. Here in South Florida, approximately 2,500 people have been trained to help the NWS in detecting severe weather.

The SKYWARN program is open to anyone and consists of attending a 3 to 4 hour class covering different aspects of severe weather such as: local severe weather statistics, types of NWS watches and warnings, tips on identifying cloud features that may be precursors to severe weather and detailed procedures for reporting severe weather directly to the National Weather Service.

In short, SKYWARN spotter are the "eyes and ears" of National Weather Service meteorologists and Emergency Managers. SKYWARN volunteers are often the initial notice that potentially life-threatening weather is occurring or about to occur. An example of this occurred back on March 29th when a tornado moved through portions of Oakland Park in Broward County. A tornado warning was already in effect for that part of Broward County when barely minutes after the tornado touched down, two local SKYWARN spotters called to report the observation of a tornado and its associated damage. These reports were used by NWS meteorologists to quickly inform the public that a tornado had been sighted and moving through Oakland Park, therefore providing people along its path time to take cover. Without spotter reports, many events would either be unreported or captured after a storm has already produced damage.

For more information on the South Florida SKYWARN program, including a schedule of upcoming classes in your area, please visit this web site:
http://www.srh.noaa.gov/mfl/?n=skywarn

NWS Miami Serves the Community

By Bob Ebaugh

NWS Miami Participates in the Miami-Dade County Fair

Once more the Miami National Weather Service Forecast Office spearheaded the preparation and maintenance of a huge NOAA/NWS display at the Miami-Dade County Fair and Exposition. We have maintained a large NOAA/NWS display at the Fair for the past 15 years, including our sister NOAA Offices of the Atlantic Meteorological and Atmospheric Laboratories' and the Southeast Fisheries and Science Center. We have also incorporated in our area a display for the Miami-Dade County Office of Emergency Management.

The fair, which averages from 500,000 to 750,000 visitors each year, provides our agency with a large space, high-speed internet, and a large projection television monitor for displaying videos. We also had a couple of additional LCD monitors which presented the NWS/NOAA websites and showed constant weather support to the public and fair with live radar and forecasts. This year's NOAA/NWS Display included large Maxitrax illuminated posters from NOAA, a tornado simulator, a NOAA Weather Radio Display, a large weather balloon, a GPS radiosonde, and a dropsonde. The display also included one-of-a-kind banners designed and prepared by Joni David, the illustrator for the National Hurricane Center. These posters were for each of the line offices and can be used for outreach by all of us for a long time.

Our display was staffed by volunteers. Stacy Stewart, a Senior Hurricane Specialist at the National Hurricane Center, volunteered several hours. You can see him in the photo to the right using the tornado simulator to describe how tornadoes are formed.

The Southeast Fisheries and Science Center had a large "Turtle Exclusion Device" on display too! Numerous brochures and flyers were handed out to the public and contact was made with countless teachers from throughout the area to provide speakers for their school's science teachers and career days.

NWS Miami Joins CBS4 to present "Marlins Weather Day at Sun Life Stadium

On April 28th, NWS Miami participated in CBS4's "Marlins Weather Day". CBS4 meteorologists explained various weather hazards to thousands of kids at Sun Life Stadium, home of the Florida Marlins MLB baseball team. Bob Ebaugh, HMT at NWS Miami (left) and Dan Gregoria, Lead Forecaster at NWS Miami (right) released a weather balloon to demonstrate one of the methods in which weather data is gathered. It was a fun-filled learning environment for the kids!

By Andrew Tingler and Dan Dixon

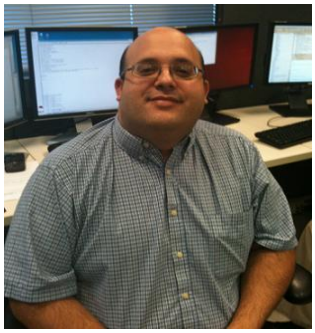
Rusty Pfost

Rusty will be retiring from the National Weather Service after 32 years of service. Rusty, a native of Dunedin, Florida, first joined the NWS in 1978 after receiving a Bachelor of Science degree from FSU and a Master of Science degree from Georgia Tech. Along the way Rusty has served at the NWS offices of Des Moines, IA, Jackson, MS, and Key West, FL, and at the Lower Mississippi River Forecast Center in Slidell, LA before becoming the MIC of the NWS in Miami in 1998. While under Rusty's leader ship, WFO Miami has won U.S. Department of Commerce Bronze Medals for pioneering the rip current forecast and preparedness program, for public service in the South Florida multiple tornado outbreak of March 2003,

public service for the active hurricane season of 2005, and a DOC Gold Medal for public service during the active hurricane season of 2004. *Good Luck on your future endeavors Rusty!*

Dr. Pablo Santos Jr

A short time after the announcement of Rusty's retirement, Dr. Pablo Santos Jr was selected as the new Meteorologist in Charge of the Miami National Weather Service Forecast Office. Pablo was born in Bayamón, Puerto Rico and went on to receive a Bachelor of Science degree in Physics from the University of Puerto Rico in 1992. He earned his Master of Science degree in Meteorology in 1995 and his PhD in 2003 both from Florida State University. Pablo worked as a Forecaster at the National Weather Service in Jacksonville, Florida from 1995 to 2000 and has served as the Science and Operations Officer at the National Weather Service Forecast Office in Miami since 2000. He looks forward to serving South Florida from his new position. *Congratulations Pablo!*



Gordon Strassberg and Doug Gaer

WFO Miami would like to take this opportunity to say farewell to one of our General Forecasters, Gordon Strassberg. Gordon has been a forecaster at the WFO in Miami since September 2006, and prior to arriving in Miami, served as an Intern at WFO Topeka, KS. He will be leaving us in mid-June to accept a forecaster position at the Center Weather Service Unit in Upton, NY. We would also like to extend farewell wishes to our Information Technology Officer, Doug Gaer. Doug has been with WFO Miami since August 2007, and previously held similar positions at WFO Key West, as well as with the National Hurricane Center. Doug has accepted a position at the Southern Region Headquarters in Fort Worth, TX, and will also be moving in mid-June.

Thanks for Reading!

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Dan Dixon, Lead Forecaster

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Pictures provided by Andrew Tingler, Dan Gregoria, and Bob Ebaugh

Questions or Comments? Please e-mail us at sr-mfl.webmaster@noaa.gov